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174, Sri Ranga Complex
Amrutha Nagar Main Road
New Bank Colony, Konanakunte
Bangalore - 560 062.
Mobile : +91 97429 59595
Tele/Fax : 080-2632 2565
E-mail : civilexpertsltd@gmail.com
URL : www.civilexperts.in

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Job No.: CECTC/BBMP/KRIDL/W.No.14/GSB-1/AL/2017-18 Date : 21.06.2017

ATTERBERG LIMITS TEST FOR GSB (COARSE GRADED)
IS : 2720 (Part - 5)

Client : **Asst. Executive Engineer,** T.Dasarahalli Sub Division, BBMP, Bangalore.

Agency : **Technical Manager (West),** KRIDL, BBMP, Bangalore.

Name of work : Improvements to roads at Soundarya layout 11th cross connection to near extension in Bagalagunte in Ward No.14, T.Dasarahalli subdivision, BBMP, Bangalore.

Date of Testing : 21.06.2017

As per MORTH Table : 400-01

Sl. No.	Particulars	Test Results	Standards as per Specifications
1	Liquid Limit, %	21.30	25.0% Maximum.
2	Plasticity Index, %	Non Plastic	6.0% Maximum.

Note:
1. The report shall not be reproduced, except in full, without the written approval of the laboratory.
2. The results indicated above are based on the tests carried out on the samples received in the laboratory.
3. Any Query regarding the report must be reported within 30 days from the date of testing.

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ಬಾಗಲಗುಂಟೆ, ಬಿಬಿಎಂಪಿ
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Job No.: CECTC/BBMP/KRIDL/W.No.14/WMM/AIV/2017-18 **Date:** 24.06.2017

Aggregate Impact Value
IS: 2386 Part IV

Client	**Asst. Executive Engineer,** T.Dasarahalli Sub Division, BBMP, Bangalore.
Agency	**Technical Manager (West),** KRIDL, BBMP, Bangalore.
Name of the Work	Improvements to roads at Soundarya layout 11th cross connection to near extension in Bagalagunte in Ward No.14, T.Dasarahalli subdivision, BBMP, Bangalore.
Source / Location	WMM Plant
Type of Mix	Wet Mix macadam
Date of Testing	24.06.2017

Sl No.	Details	Trial No.			Average
		1	2	3	
1	Total weight of aggregate sample filling the cylindrical measure = W_1 g	362	365	369	
2	Weight of agregate passing 2.36 mm sieve after the test = W_2 g	83	86	88	
3	Weight of aggregate retained 2.36 mm sieve after the test = W_3 g	279	279	281	
4	Aggregate Impact value = percent fines 100* (W_2/W_1)%	22.93	23.56	23.85	23.45

Comments:

→ Maximum allowable Aggregate Impact value for Wet mix Macadam is 30%

Note:

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Job No.: CECTC/BBMP/KRIDL/W.No.14/BM/QB/2017-18

Date: 28.06.2017

TEST REPORT

Client	:	**Asst. Executive Engineer,** T.Dasarahalli Sub Division, BBMP, Bangalore.
Agency	:	**Technical Manager (West),** KRIDL, BBMP, Bangalore.
Name of the work	:	Improvements to roads at Soundarya layout 11th cross connection to near extension in Bagalagunte in Ward No.14, T.Dasarahalli subdivision, BBMP, Bangalore.
Source of location	:	Hot mix Plant, Bangalore
Date of testing	:	28.06.2017

The results of the tests conducted on the bitumen sample using for Bituminous Macadam

Sl. No	Description	Test Result	Requirement as per IS:73:2013
1	Penetration at 25 ^{0}C, 1/10 mm	63	60 to 70
2	Softening point, ^{0}C	47	Min. 45
3	Ductility at 27^{0}C, cm	100 >	Min. 50
4	Flash Point, ^{0}C	289	Min. 220

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Job No.: CECTC/BBMP/KRIDL/W.No.14/BC/AIV/2017-18 29.06.2017

Aggregate Impact Value

IS: 2386 Part IV

Client	**Asst. Executive Engineer,** T.Dasarahalli Sub Division, BBMP, Bangalore.
Agency	**Technical Manager (West),** KRIDL, BBMP, Bangalore
Name of the Work	Improvements to roads at Soundarya layout 11th cross connection to near extension in Bagalagunte in Ward No.14, T.Dasarahalli subdivision, BBMP, Bangalore.
Source / Location	Hot Mix Plant, Bangalore
Type of Mix	Bituminous Concrete
Date of Testing	29.06.2017

Sl No.	Details	Trial No.		Average
		1	2	
1	Total weight of aggregate sample filling the cylindrical measure = W_1 g	367	369	
2	Weight of agregate passing 2.36 mm sieve after the test = W_2 g	84	88	
3	Weight of aggregate retained 2.36 mm sieve after the test = W_3 g	283	281	
4	Aggregate Impact value = percent fines 100* (W_2/W_1) percent	22.89	23.85	**23.37**

Comments:

→ Maximum allowable Aggregate Impact value for Bituminous Concrete is 24%

Note:

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Job No: CECTC/BBMP/KRIDL/W.No.14/BC/Bit/2017-18 29.06.2017

BITUMEN DETERMINATION OF BITUMINOUS CONCRETE MIX

As per IRC : SP : 11 - 1984

CLIENT	**Asst. Executive Engineer,** T.Dasarahalli Sub Division, BBMP, Bangalore.
AGENCY	**Technical Manager (West),** KRIDL, BBMP, Bangalore.
NAME OF THE WORK	Improvements to roads at Soundarya layout 11th cross connection to near extension in Bagalagunte in Ward No.14, T.Dasarahalli subdivision, BBMP, Bangalore.
SAMPLE I/D	Soundarya layout 11th cross connection to near extension in Bagalagunte in Ward No.14, T.Dasarahalli subdivision
DATE OF TESTING	29.06.2017

BITUMEN CONTENT DETERMINATION

Description	Trail 1	Trail 2
1. Weight of Mixture before Test, g	500	500
2. Weight of Mixture after Test, g	469	470
3. Weight of Asphalt and Mineral matter Extracted, g	-	-
4. Weight of Mineral Matter, g.	-	-
5. Weight of Ash, g		
6. Weight of Bitumen Extracted, g. (corrected)	31	30.00
7. Bitumen content in %	6.20	6.00
8. Average	**6.10**	

Note:

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Þ The results indicated above are based on the tests carried out on the samples at site

Þ Any Query regarding the report must be reported within 15 days from the date of testing

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URL : www.civilexperts.in

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Job No.: CECTC/BBMP/KRIDL/W.No.14/BC/Sta/2017-18 29.06.2017

TEST REPORT ON STABILITY OF MIX

Client	:	**Asst. Executive Engineer,** T.Dasarahalli Sub Division, BBMP, Bangalore.
Agency	:	**Technical Manager (West),** KRIDL, BBMP, Bangalore.
Name of the Work	:	Improvements to roads at Soundarya layout 11th cross connection to near extension in Bagalagunte in Ward No.14, T.Dasarahalli subdivision, BBMP, Bangalore.
Source of location	:	Hot mix Plant, Bangalore
Type of Mix	:	Bituminous Concrete
Date of Testing	:	29.06.2017

The results of the tests conducted on the Bituminous Concrete mix sample are as follows:

Sl. No	Description	Test Result 1	Test Result 2	Requirement as per MORTH (Table 500-19)
1	Marshal Stability, Kn	10.15	10.30	9 Kn (min)
2	Marshal flow, mm	2.98	3.55	2 – 4
3	Percent air voids in Mineral Aggregate	13.69	14.47	13 – 15
4	Voids in Compacted Mix	3.96	4.56	3 – 6
5	Percent Voids filled with Bitumen	72.55	72.90	65 - 75
6	Density, g/cc	2.26	2.27	--

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